

Bowling, Linda

From: Wiser, Nathan
Sent: Wednesday, May 17, 2017 8:25 AM
To: Bowling, Linda
Cc: Wang, Gary; Breffle, Don
Subject: FW: Remedial cement WO Request
Attachments: WATTENBERG DISPOSAL - Procedure.pdf

Importance: High

Hi Linda,

Wattenberg Disposal LLC wishes to squeeze cement behind the currently uncemented production casing of the Suckla Farms #1 well. Apparently, Anadarko Petroleum is wanting to hydraulically fracture a nearby production well at intervals shallower than the existing top of cement behind the Suckla Farms #1 production casing.

For reworks, the recently issued permit, CO10938-02115, at section II(A)(6) requires compliance with all conditions in the permit and section II(A)(1) refers to the Appendix A well construction including the wellbore diagram and construction description. Newly added cement behind the production casing obviously does not appear in Appendix A because it does not yet exist.

Following our discussion yesterday during the Tech Mtg, this seems to be an example where a permit modification is needed because the well's construction will be changed, and this is taking place long after the "during construction" phase of the well, described in 144.52(a)(6). I believe this will have to be a major mod as a result. If you have a different understanding or interpretation, please let me know. Seems like Wattenberg is in a hurry.

Nathan Wiser

Environmental Scientist
U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance and Environmental Justice
Safe Drinking Water Act Enforcement Unit

Mailing address:
1595 Wynkoop Street (Mail code 8ENF-W-SDW)
Denver, CO 80202

(303) 312-6211 direct
wiser.nathan@epa.gov

From: Breffle, Don
Sent: Tuesday, May 16, 2017 1:03 PM
To: Wang, Gary <wang.gary@epa.gov>; Wiser, Nathan <Wiser.Nathan@epa.gov>
Subject: FW: Remedial cement WO Request
Importance: High

See below

From: Susana Lara-Mesa [<mailto:SLaraMesa@kpk.com>]
Sent: Tuesday, May 16, 2017 12:50 PM
To: Breffle, Don <Breffle.Don@epa.gov>

Status	Comment
U	Offset mitigation work requested by Anadarko

Requirements	Comment
Approval from APC	

Stage	Procedure	Comments	Time [hours]
Rig Move	MIRU		4
	NU		2
	Set BOP		2
	Rig Crew travel		
Preparation	Lay-down fiber-lined tubing		16
	Pick-up work string	Bit and scraper	1
	Tag bottom, TOH		8
Squeeze Niobrara	RIH Wireline shoot perforations for squeeze job	Nio: 7100'-8406'	6
	RIH work string and 32A packer	Hydro test. Set packer 200' above perfs	4
	Test packer and casing. Establish Injection rate		2
	Squeeze Niobrara, displace cement	220 sx	4
	TOH		
Test Niobrara	RIH with cone bit, drill excess cement		4
	Test squeeze job		2
	TOH		4
Squeeze Sussex 1	RIH Wireline shoot perforations for squeeze job	Sussex 1: 5200'-5400'	6
	RIH work string and 32A packer	Hydro test. Set packer 200' above perfs	4
	Test packer and casing. Establish Injection rate		2
	Squeeze Niobrara, displace cement	30 sx	4
	TOH		
Test Sussex 1	RIH with cone bit, drill excess cement		4
	Test squeeze job		2
	TOH		4
Squeeze Sussex 2	RIH Wireline shoot perforations for squeeze job	Sussex 2: 4700'-5100'	6
	RIH work string and 32A packer	Hydro test. Set packer 200' above perfs	4
	Test packer and casing. Establish Injection rate		2
	Squeeze Niobrara, displace cement	70 sx	4
	TOH		
Test Sussex 2	RIH with cone bit, drill excess cement		4
	Test squeeze job		2
	TOH		4
Squeeze Sussex 3	RIH Wireline shoot perforations for squeeze job	Sussex 3: 4500'-4600'	6
	RIH work string and 32A packer	Hydro test. Set packer 200' above perfs	4
	Test packer and casing. Establish Injection rate		2
	Squeeze Niobrara, displace cement	20 sx	4
	TOH		
Test Sussex 3	RIH with cone bit, drill excess cement		4
	Test squeeze job		2
	TOH		4
TOTAL			137



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region8

JUN 27 2017

Ref: 8WP-SUI

Ms. Susana Lara-Mesa
Engineering Project Manager
K.P. Kauffman Company, Inc.
1675 Broadway, Suite 2800
Denver, Colorado 80202

Re: Draft Major Permit Modification to Reconstruct the Suckla Farms No. 1, Weld County,
Colorado, Permit No. CO10938-02115, API No. 05-123-14291

Dear Ms. Lara-Mesa:

Enclosed are a Draft Underground Injection Control (UIC) Major Modification, Draft Statement of Basis and announcement of Public Notice for the proposed revisions to the Permit. Our office has prepared a Draft Major Modification to incorporate your request to amend construction plans for the Suckla Farms No. 1 Class I non-hazardous injection well noted in the subject line.

As discussed during previous correspondences in May and June 2017, the Environmental Protection Agency Region 8 is currently accepting comments for the request to modify the Permit during the thirty (30) day public comment period. An announcement requesting public comment has been published in the Longmont Times-Call of Longmont, Colorado, and the Denver Post of Denver, Colorado. The procedures for submission of comments as well as for the EPA's consideration of such comments are set forth in 40 CFR, Part 124, Subpart A. Please be aware that a Final Major Modification Permit decision for the well will not be made until after the public comment period closes.

If you have any questions or comments on this action, please contact Linda Bowling at (303) 312-6254. Correspondence regarding the Draft Major Modification should be directed to the letterhead address to the attention of: Linda Bowling citing "MAIL CODE: 8WP-SUI".

Sincerely,

Douglas Minter
UIC Unit Manager
Office of Water Protection

Enclosures (3)

cc: Jim Annable
Bureau of Land Management
jannable@blm.gov

**DRAFT MAJOR MODIFICATION
APPENDIX A CONSTRUCTION PROCEDURE**

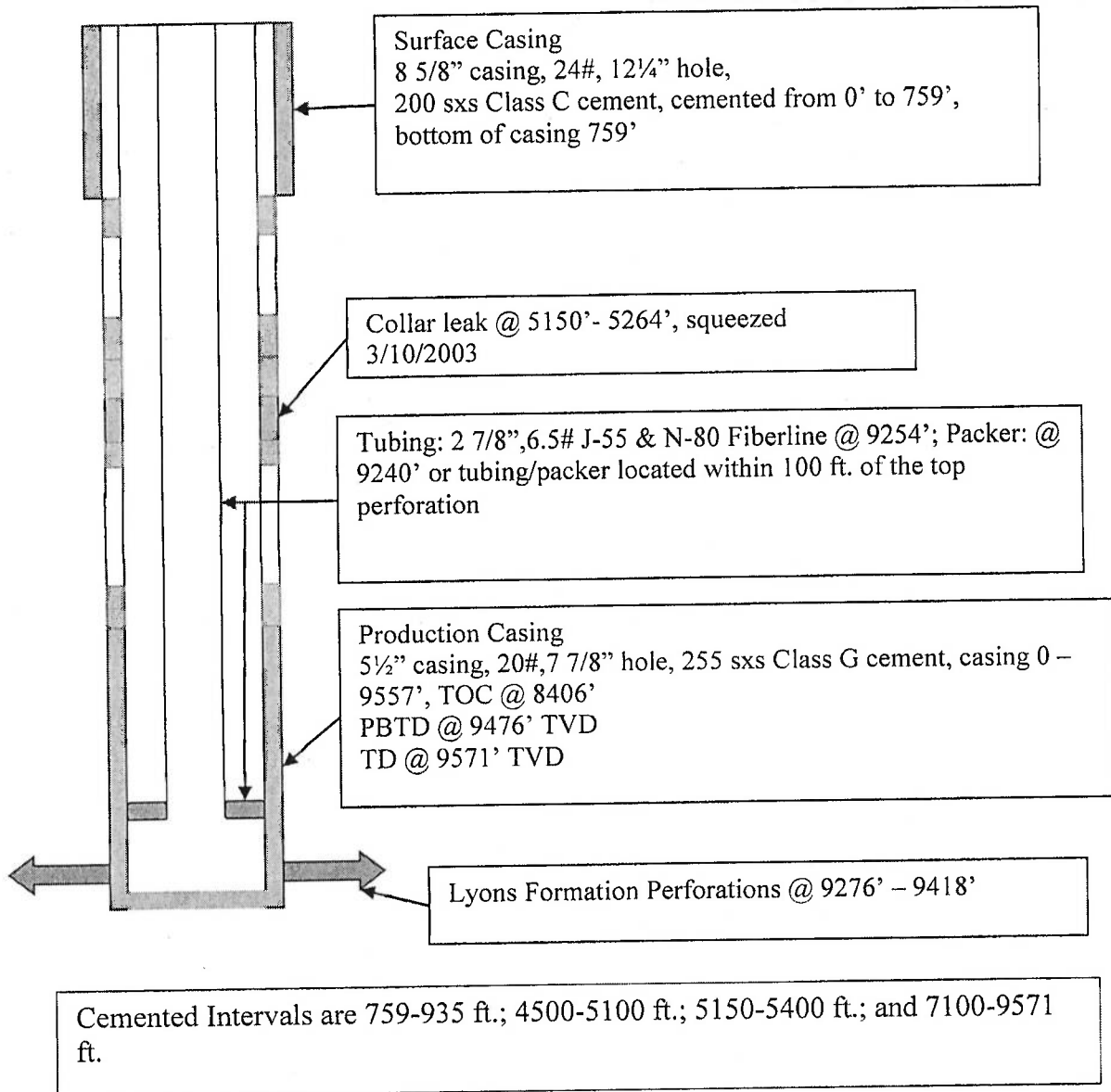
Original Language

The construction procedures for the SUCKLA FARMS INJECTION WELL #1, are presented below.

APPENDIX A CONSTRUCTION PROCEDURE

CATEGORY	DESCRIPTION
Well Name	Suckla Farms Injection Well #1
API Number	05-123-14291
Location	SENW, 500 feet (ft.) from the south line and 2020 ft. from the west line, Section 10, Township 1 North, Range 67 West, Weld County, Colorado
Surface Casing	8 5/8-inch casing, 24 lb. weight, 12 1/4 inch hole, 0 – 759 ft. depth of casing, cemented between 0 – 759 ft.
Production Casing	5 1/2 inch casing, 20 lb. weight, 7 7/8-inch hole, 0 – 9557 ft. depth of casing, cemented between 8406 ft. – 9557 ft.
Tubing	2 7/8 inch Fiberline tubing, shall be set at 9254 ft. or within 100 ft. of the top open perforation
Packer	Packer shall be set at 9240 ft. or within 100 ft. of the top open perforation
Perforations	9276 ft. – 9418 ft.
Top of Cement	8406 ft.
Total Depth	9571 ft.
Plug Back Total Depth	9476 ft.

Modified Diagram
 Suckla Farms #1 Disposal Well
 SENW, 500 feet (ft.) from the south line and 2020 ft. from the west line, Section 10,
 Township 1 North, Range 67 West, Weld County, Colorado
 API No. 05-123-14291



STATEMENT OF BASIS

Draft Major Modification for Final Permit Renewal

Suckla Farms #1 Underground Injection Well
SENW, 500 feet (ft.) from the south line (FSL) and 2020 ft. from the west line (FWL),
Section 10, Township 1 North, Range 67 West
Weld County, Colorado

EPA PERMIT NO. CO10938-02115

COMMERCIAL NON-HAZARDOUS
CLASS I DISPOSAL FACILITY

WELD COUNTY, COLORADO

Wattenberg Disposal, LLC
1675 Broadway, Suite 2800
Denver, Colorado 80202

Dated: June 2017

CONTACT: Linda Bowling
U. S. Environmental Protection Agency Region 8
Office of Water Protection; 8WP-SUI
1595 Wynkoop Street
Denver, Colorado 80202-1129
Telephone: 800-227-8917, extension 312-6254

J Sand	Sandstone, Siltstones and shale	8133		unknown	Geological Setting
Dakota Sandstone	Sandstone and shale	8281		unknown	Geological Setting
Lakota Sandstone	Sandstone	8368		unknown	Geological Setting
Morrison	Mudstone, sandstone, siltstone and limestone	8404			Confining zone
Entrada	Sandstone	8562		unknown	Geological Setting
Harriman Shale (Forell)	Shale	9069	9139		Confining zone
Blaine Salt	Anhydrite and Shale	9143	9274		Confining Zone
Lyons Sandstone	Sandstone	9274	9422	33,000 mg/l	Injection zone
Santanka Shale	Shale	9422			Confining zone

The upper portion of the Pierre Shale has been identified as an Underground Source of Drinking Water.

Underground Sources of Drinking Water (USDWs) (TABLE 2.4)

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS) and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

TABLE 2.4
UNDERGROUND SOURCES OF DRINKING WATER (USDW)

FORMATION NAME	GEOLOGICAL DESCRIPTION	TOP DEPTH, ft.	BOTTOM DEPTH, ft.	TDS mg/l	ZONE TYPE
Arapahoe	Sandstone, siltstone, and shale	350		<10,000 mg/l	USDW
Laramie	Sandstone, mudstone, clay and coal			<10,000 mg/l	USDW
Fox Hills	Sandstone, siltstone and shale	650		<10,000 mg/l	USDW
Pierre Shale	Sandstone	700	885	<10,000 mg/l	USDW

The upper portion of the Pierre Shale is used to recover water for domestic use and is considered a USDW.

Administrative Copy

CO10938-02115

Major Permit Modification
Wattenberg Disposal, LLC, Suckla Farms No. 1 Well
Weld County, Colorado

Permit Modification Writer: Linda Bowling, bowling.linda@epa.gov, (303) 312-6254

U.S. ENVIRONMENTAL PROTECTION AGENCY ANNOUNCEMENT OF PUBLIC NOTICE OF GROUND WATER PERMIT ACTION

The U.S. Environmental Protection Agency (EPA) intends to issue an Underground Injection Control (UIC) permit-related action, under the authority of the Safe Drinking Water Act and UIC program regulations, for the Suckla Farms No. 1 Well Permit operated by Wattenberg Disposal, LLC, EPA permit number CO10938-02115. This action would authorize the operator to place additional cement behind the longstring casing of the Suckla Farms No. 1 at the depths of several formations: Pierre Sandstone and Shale, Niobrara, Sussex Sandstone, Shannon Sandstone, Codell, Carlile Shale, Huntsman, J Sand, Dakota Sandstone, Lakota, and Morrison. Re-construction of the Suckla Farms No. 1 well will involve the placement of additional cement behind pipe to prevent contaminants from migrating into USDWs as a result of fracking activities occurring in nearby wells. Cement will be placed behind pipe at the depths of 759 – 935 ft; 4500-4600 ft; 4700 – 5100 ft; 5200 -5400 ft; and 7100 – 8406 ft. The public notice, which requests comments on this action within 30 days, can be found at the EPA Region 8 UIC program's website: <https://www.epa.gov/uic/underground-injection-control-epa-region-8-co-mt-nd-sd-ut-and-wy#guidance>.

Alternatively, the public may contact or call Linda Bowling at bowling.linda@epa.gov, 1-800-227-8917 extension 312-6254 or (303) 312-6254 to get a copy of the public notice and/or documentation associated with this section.